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PROTECT

AND

MANAGE

GOOD

SOUTHERN

HARDWOODS

J. S. McKnight



SOUTHERN FOREST EXPERIMENT STATION

Philip A. Briegleb, Director

FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE

1959

HARRY
ROSSOLL

Grow Good Hardwoods!

Hardwoods are the trees to grow for the greatest timber values on the bottom-lands of most rivers and small streams of the South. The Brown Loam Bluffs along the eastern edge of the Delta, as well as other uplands with deep rich soil, are also prime hardwood sites. Many swamps grow excellent tupelo, bay, and cypress.

Hardwood stands can be managed to grow better than 500 board feet per acre annually.

Market prospects are good. A volume of almost 8 billion board feet of hardwood is harvested each year in the South. This is about two-thirds of the total production of hardwoods in the United States. The volume of good pine timber is increasing, that of the good hardwoods is decreasing. But pine cannot substitute for the distinctive uses that hardwoods serve. The likelihood of a strong and continuing demand for quality hardwoods means that it will pay land-owners to protect and manage hardwoods that are growing on suitable sites.

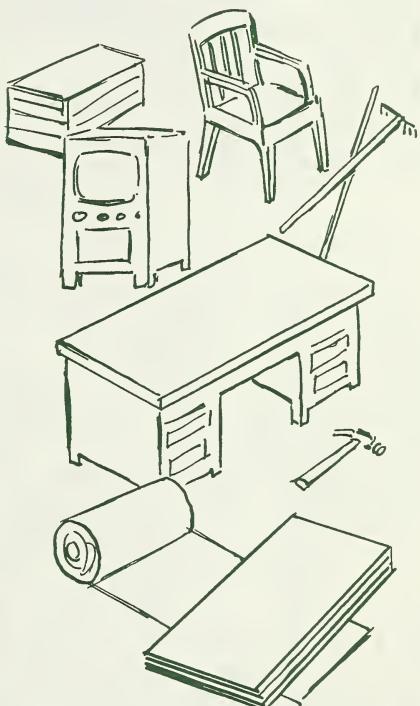
WHAT ARE GOOD HARDWOODS?



Crop trees grow from $\frac{1}{4}$ to 1 inch in diameter every year, depending on site, density of stand, and species.

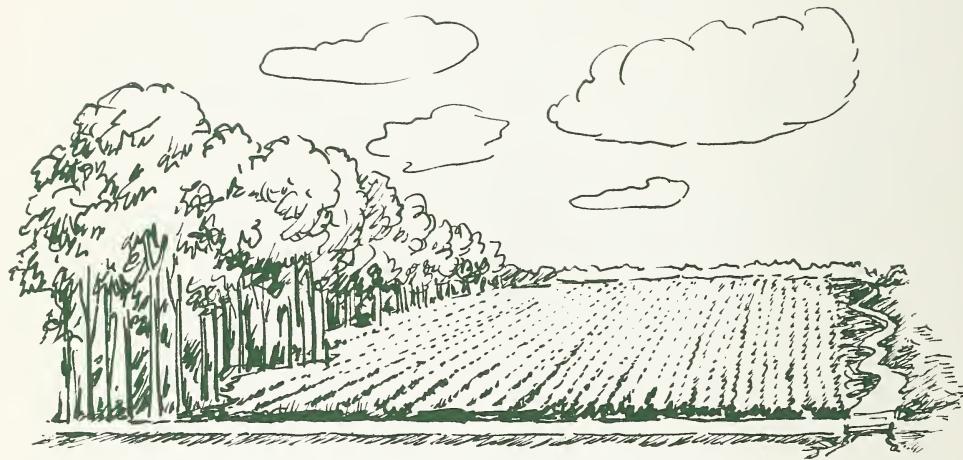
Good hardwoods produce clear logs.

The lumber meets the requirements for the manufacture of furniture, flooring, implement handles, and a myriad of other products.



MOST HARDWOOD FORESTS CONTAIN MANY SPECIES—NEARLY ALL FIND MARKETS. THOUGH LUMBER AND VENEER LOGS ARE THE MOST VALUABLE PRODUCTS, HARDWOOD STANDS ALSO YIELD PULPWOOD, TIES, POSTS, PILING, AND CONSTRUCTION LUMBER.

WHERE THE GOOD HARDWOODS GROW



RIVER-BOTTOM LANDS



CREEK AND STREAM BOTTOMS IN PINEY WOODS



DEEP, RICH UPLAND SOILS



SWAMPS

IF YOU HAVE SUCH FORESTED SITES, THEN ...

PROTECT—FROM FIRE!



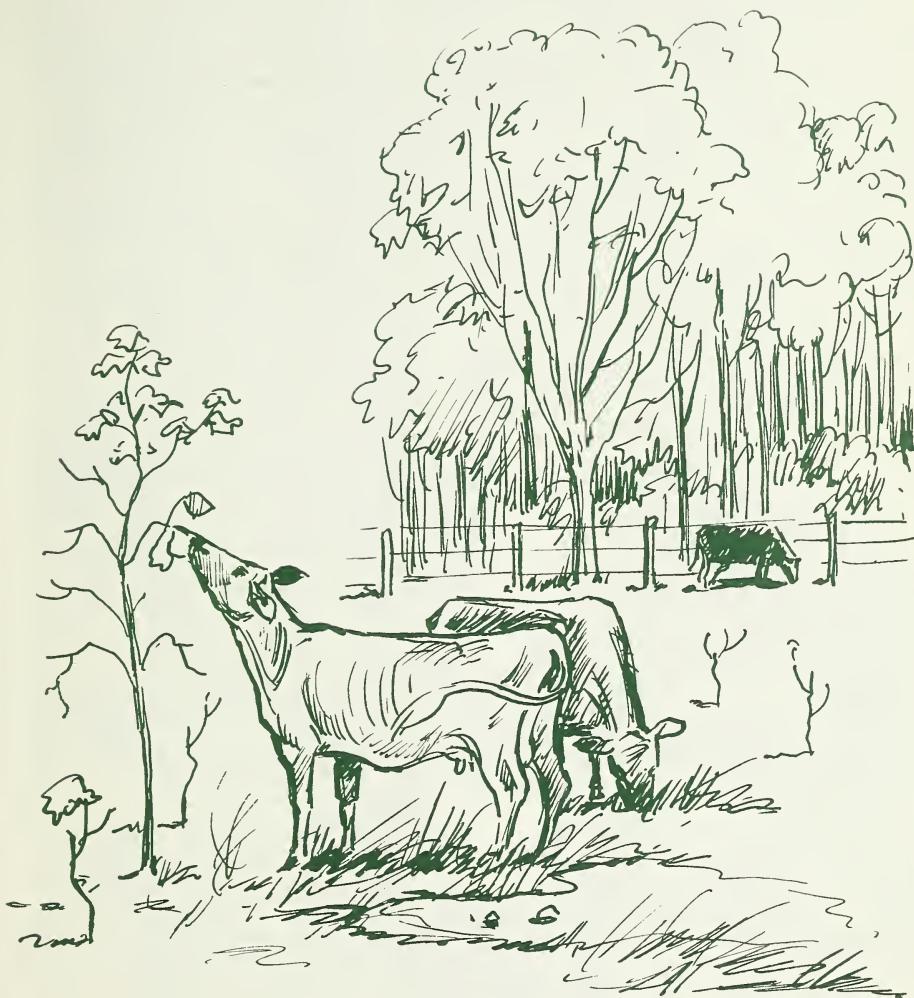
Fire kills the young trees and destroys litter that holds moisture and provides nutrients.



It wounds larger hardwoods, permitting entry of rot that progresses as the tree grows.

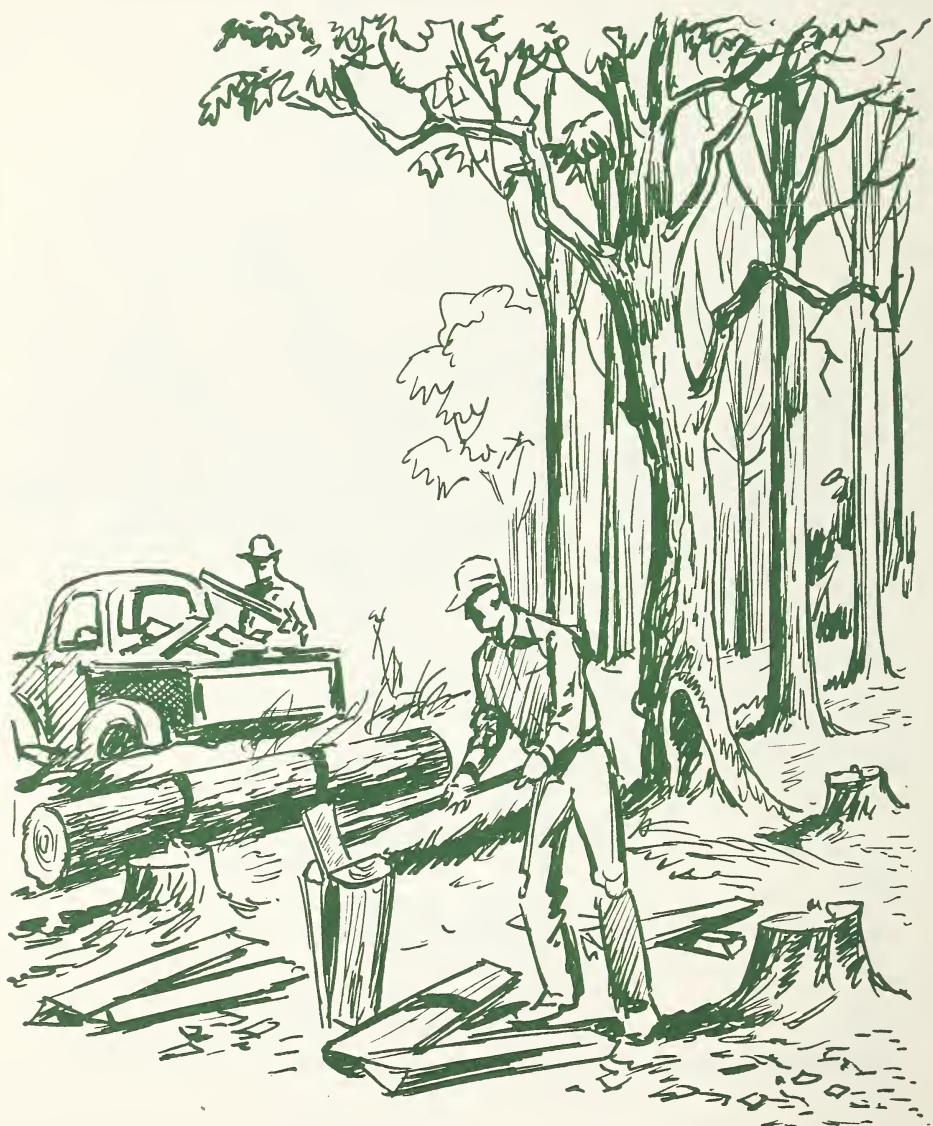
EVEN IF FIRE OCCURS ONLY ONCE IN A GENERATION, IT CAN NULLIFY THE EFFORTS OF MANAGEMENT AND REDUCE THE EARNING POWER OF THE FOREST FOR YEARS TO COME. DRY AUTUMNS, PARTICULARLY AFTER HEAVY FROST, ARE ORDINARILY THE DANGEROUS PERIODS. UNUSUALLY DRY WINTERS OR EARLY SPRINGS ALSO CALL FOR EXTRA VIGILANCE.

PROTECT—FROM GRAZING!



LIVESTOCK OF ALL KINDS—CATTLE, HOGS, SHEEP, GOATS, HORSES, AND MULES—WILL PREVENT DEVELOPMENT OF WELL-FORMED YOUNG TREES AND THUS CUT OFF CONTINUOUS YIELDS FROM A HARDWOOD FOREST.

PROTECT—FROM UNCONTROLLED CUTTING!



IN SOME AREAS WOODCUTTERS HAVE DONE AS MUCH DAMAGE AS FIRE IN ELIMINATING HARDWOODS OF GOOD FORM AND QUALITY. PROPERLY SUPERVISED, FUELWOOD CUTTING CAN IMPROVE THE STAND BY REMOVING WORTHLESS TREES. FOREST OWNERS SHOULD ALSO PREVENT THE CUTTING OF POTENTIAL MONEY TREES FOR FENCE POSTS OR TO "CATCH A COON."

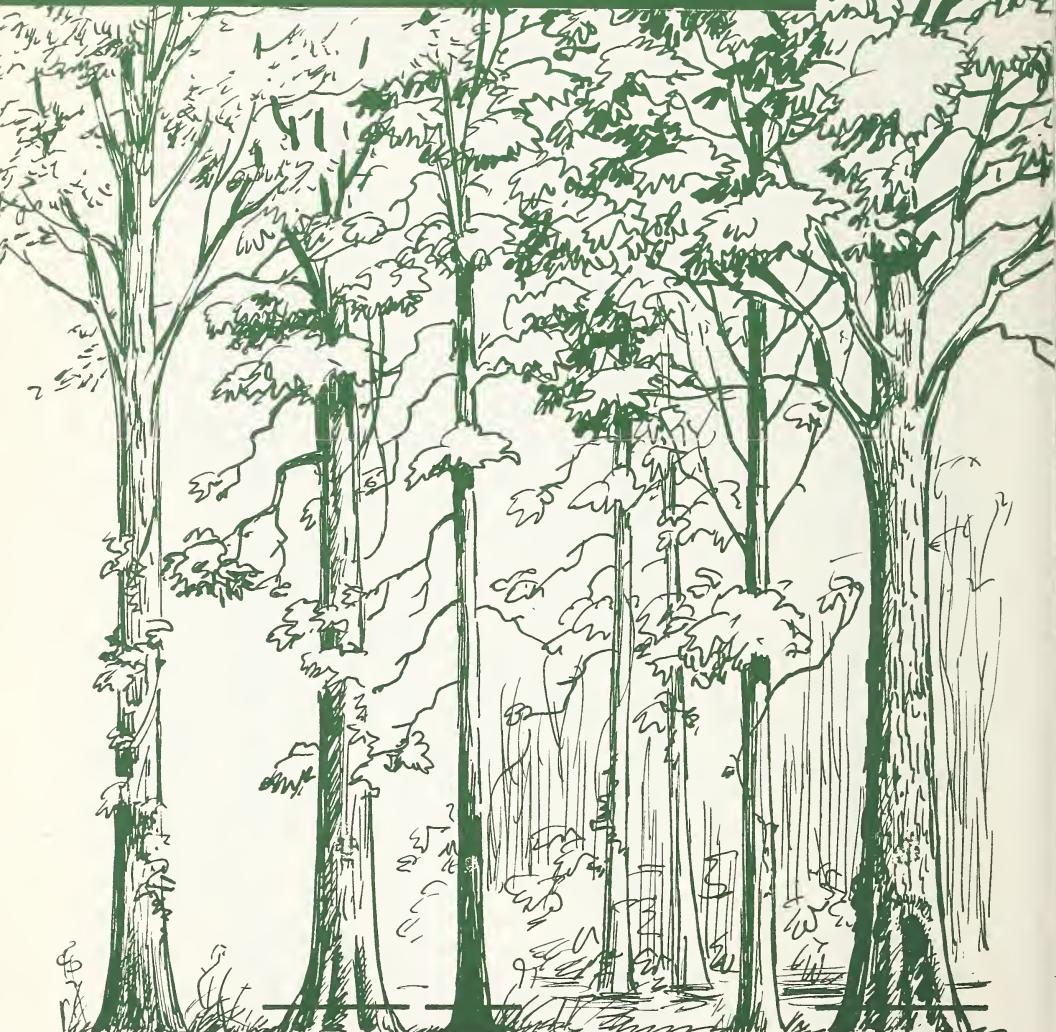
DEADEN CULL TREES



IN MOST HARDWOOD STANDS, PAST FIRES AND CUTTING HAVE LEFT NUMEROUS WEED AND CULL TREES THAT ARE WASTING GROWING SPACE.

SELECTIVELY MANAGE MOST

STANDS OF HARDWOODS



HARDWOOD FORESTS USUALLY CONTAIN TREES OF MANY SIZES, SPECIES, AND QUALITIES. UNDER MANAGEMENT, THE FIRST SEVERAL HARVESTS WILL BE AIMED AT REMOVAL OF DAMAGED AND SLOW-GROWING TREES. THE GOAL SHOULD BE TO BUILD UP VOLUME IN STEMS OF BETTER QUALITY AND PREFERRED SPECIES. REMOVAL OF LESS DESIRABLE TREES WILL CREATE OPENINGS IN WHICH SEEDLINGS CAN DEVELOP, AND WILL RELEASE ESTABLISHED TREES FOR FAST GROWTH. (IN THE PICTURE, LINES AT STUMP HEIGHT MARK TREES THAT SHOULD BE CUT.)

THIN EVEN-AGED STANDS



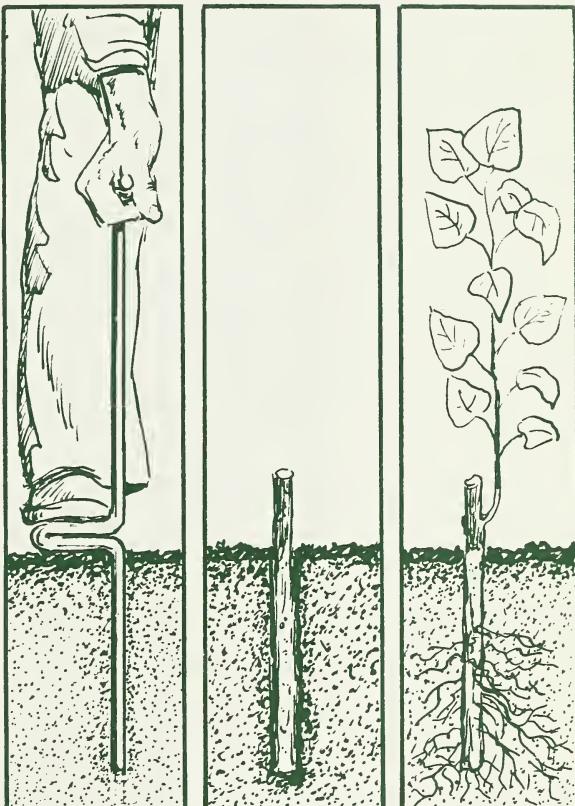
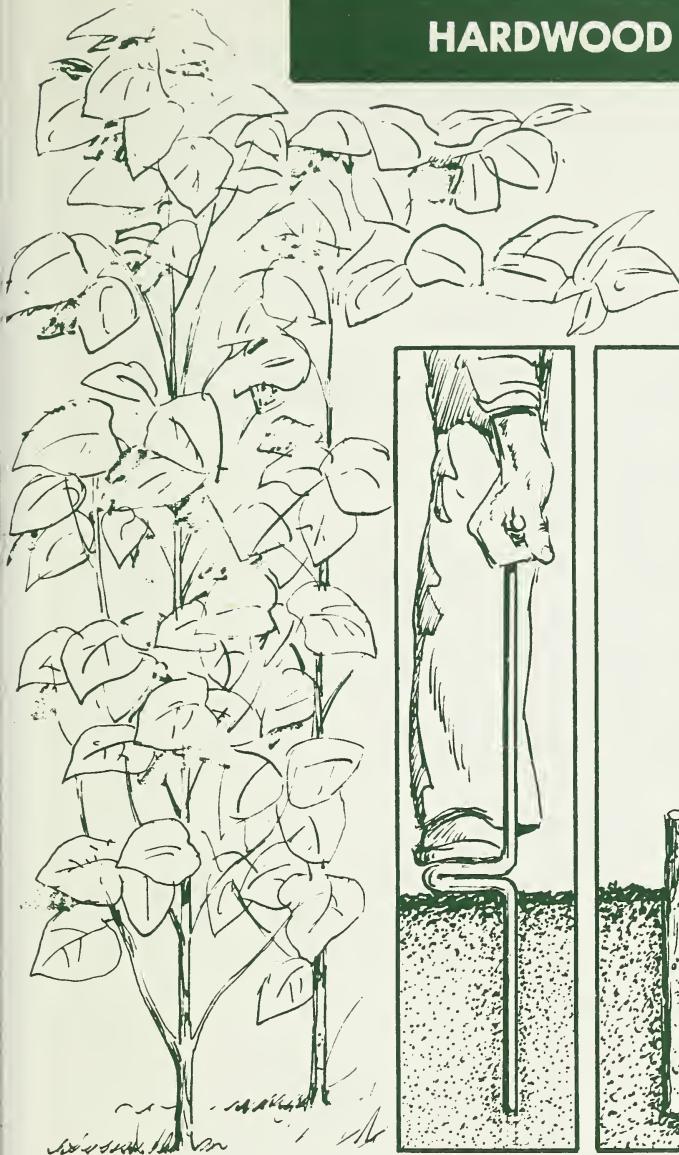
IN CROWDED STANDS OF PULPWOOD SIZE, THIN TO GIVE THE CROWNS OF THE THRIFTIEST TREES ROOM TO EXPAND. BEGIN BY TAKING OUT THE DAMAGED AND WEAK (USUALLY THE SMALLEST) TREES.

CONSIDER BEFORE CLEARING



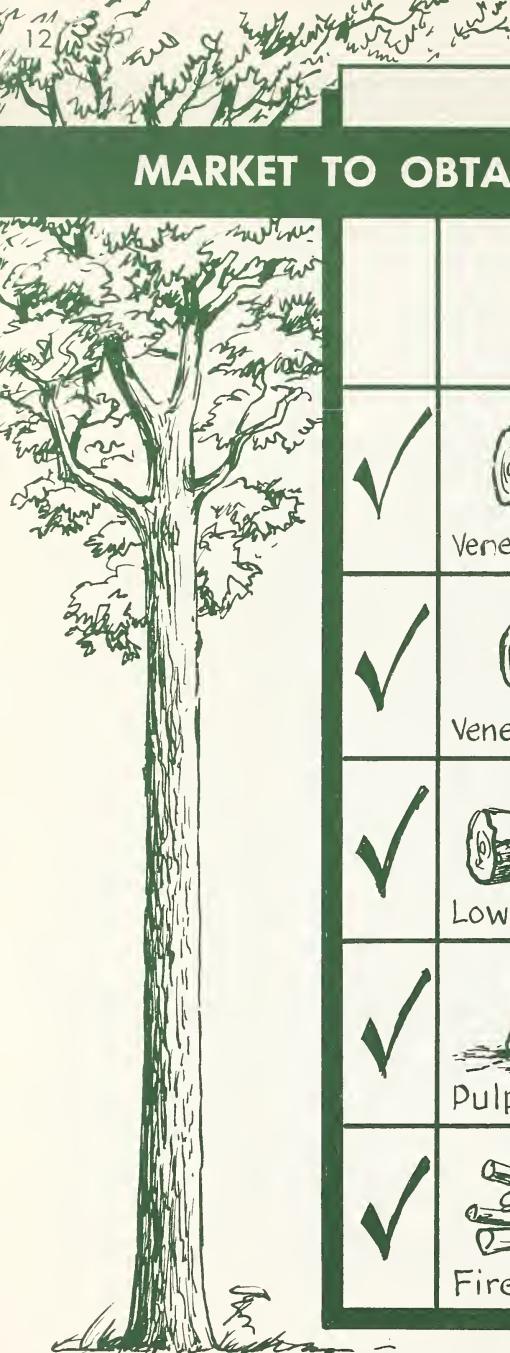
- MANAGED HARDWOODS CAN YIELD STUMPAGE WORTH 5 TO 10 DOLLARS OR MORE PER ACRE ANNUALLY.
- IN MANY SITUATIONS TIMBER GROWING IS MORE PROFITABLE IN THE LONG RUN THAN OTHER LAND USES.
- THE HARDWOOD FORESTS ARE THE PRINCIPAL GAME HABITATS OF THE SOUTH.
- IT IS MUCH MORE DIFFICULT TO RE-ESTABLISH A HARDWOOD FOREST THAN IT IS TO DESTROY IT.

HARDWOOD PLANTING?



MUCH HAS YET TO BE LEARNED ABOUT HARDWOOD PLANTING. ON GOOD SITES, COTTONWOOD CAN BE SUCCESSFULLY PLANTED AS CUTTINGS. SEEDLINGS OF ASH, YELLOW-POPLAR, RED OAKS, AND SWEETGUM HAVE SHOWN PROMISE IN WELL-TENDED PLANTATIONS. SEEK DETAILS BEFORE PLANTING. TRY IT ON A SMALL SCALE FIRST.

MARKET TO OBTAIN BEST RETURNS



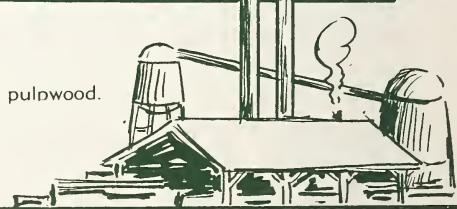
PRODUCT CLASSES

	Veneer logs and high-grade sawlogs
	Veneer bolts and short high-grade logs
	Low-grade logs (local use)
	Pulpwood
	Firewood

Marketing radius (distance from forest to mill):

125 miles for good sawlogs and veneer logs.

600 miles for top veneer logs. 50 to 100 miles for pulpwood.



Know Your Timber — Investigate all Markets

SEEK ADVICE OF A FORESTER!

DON'T GUESS! GET ADVICE FROM A FORESTER. HE CAN HELP IN DETERMINING PROCEDURE, MAKING SALES, AND PLANNING STAND PROTECTION AND IMPROVEMENT.

You can obtain assistance by contacting:

State Forester

State Extension Forester

Regional Forester, U. S. Forest Service,
Atlanta 5, Georgia

State Conservationist, U. S. Soil Conservation Service

Consulting Foresters

Industrial Foresters

